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Bibliography

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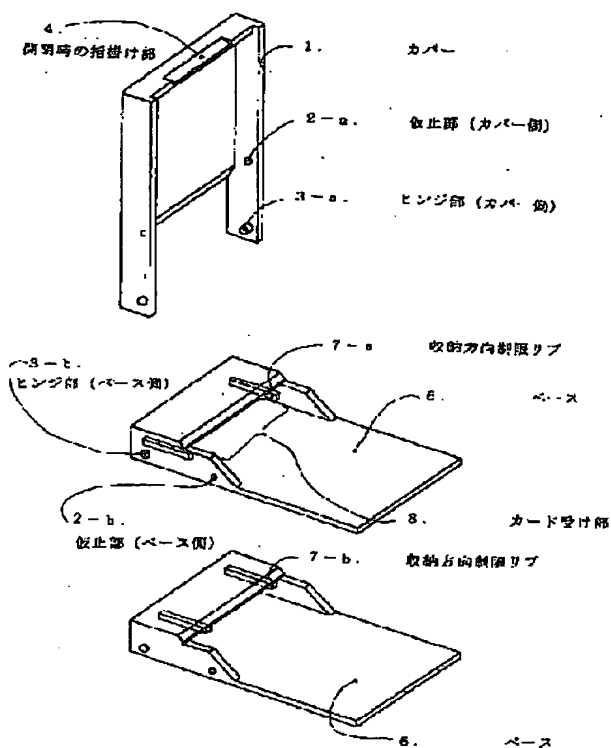
Summary

(57) [Abstract] (*****)

[Technical problem] The case which prevents the electrostatic discharge of an internal circuitry with the appearance which does not touch a connector side directly, and static electricity charged on the human body is offered in the case of the receipts and payments of the IC card for connection with the exterior which carries out connector ** from one side.

[Means for Solution] It consists of covering 1 and the base 6, and is inserted in by each hinge region 3-a and 3-b, and a revolute pair is made. The card receptacle section 8 closed to the base point is formed for hinge region and tacking section 2-b in the outside both-sides side. Card receipt direction limit rib 7-a which suits incorrect **** of the card contained is prepared in the inside both-sides side of the card receptacle section. According to the card configuration contained, card receipt direction limit rib 7-b may be prepared in the inside upper surface of the card receptacle section. The fingerplate section 4 at the time of opening and closing is formed in the outside end face of covering, and hinge region and tacking section 2-a is formed in an inside both-sides side.

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CLAIMS

[Utility model registration claim]

[Claim 1] The card receptacle section (8) of the configuration which the nose of cam of the base (6) closed is prepared, and a hinge region (3-b) and the tacking section (2-b) are prepared in an outside both-sides side. The card receipt direction limit rib (7-a) which suits the incorrect fitting prevention slot on the IC card (5) is prepared in the inside both-sides side of the card receptacle section (8). Moreover, the card receipt direction limit rib (7-b) may be prepared in the inside upper surface. When

not using the incorrect fitting prevention slot on the IC card (5) but using the geometrical difference by the side of connectors, such as a card drawing rib (9), and an anti-connector, it prepares the card receipt direction limit rib (7-b). A hinge region (3-a) and the tacking section (2-a) are prepared at the nose of cam of an inside both-sides side of covering (1), and the fingerplate section at the time of opening and closing (4) is prepared in an outside end face. The base (6) and the hinge regions (3-a, 3-b) of covering (1) are inserted in, and a case is constituted. The case for IC cards characterized by the above structure.

[Claim 2] That in which it is in the case of a claim 1 and the material of construction contains the antistatic agent.

[Claim 3] That to which it is in the case of a claim 2 and the antistatic treatment of the front face is carried out.

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DETAILED DESCRIPTION

[Detailed explanation of a design]

[0001]

[Industrial Application]

This design is related with the case of the IC card which has a connector for connection with the exterior in one side represented by memory card and the I/O card.

[0002]

[Description of the Prior Art]

the conventional case -- general -- an IC card -- receipt **** -- there is no clear directivity and either this side or an opposite side can contain the connector side of an IC card When taking out an IC card from a case, there was a danger of carrying out the electrostatic discharge of the semiconductors, such as memory, by electric discharge of static electricity directly charged on the grip and the human body in the connector side.

[0003]

[Problem(s) to be Solved by the Device]

When appearance receipt was carried out and an IC card was taken [which a direction does not become settled but becomes this side about the connector side of an IC card when it contains in a case] out with the conventional case for IC cards from a case, there was a danger of static electricity charged on the human body having discharged through a connector, and carrying out the electrostatic discharge of the semiconductors, such as internal memory. Moreover, when equipping a personal computer etc. with an IC card in this case, it needed to have a connector side in the opposite side again, and there was danger same also in that case.

[0004]

This design makes it a technical problem to offer the case which can equip equipments, such as a personal computer, in the state [having taken out the IC card from the case], without solving the above-mentioned problem and touching a direct human body with a connector area from a case in the case of IC card receipts and payments.

[0005]

[Means for Solving the Problem]

It doubles with the structure and the configuration of various IC cards, a rib, a salient, etc. are prepared in a case receptacle circles side, receipt directivity is given, and a case is made to contain from the connector side of an IC card about this design. Or when a case is opened, the anti-connector side of an IC card is held and wearing becomes possible as it is at equipments, such as a personal computer. Moreover, the effect of an eradication is more expectable using the thing containing the antistatic agent for the quality of the material of a case as part of the cure against static electricity, and by giving an antistatic treatment to a case front face.

[0006]

[Function]

According to this design, the connector side of IC card 1 is carried out previously, if it contains to the card receptacle (8) of a case, it will insert in the card receipt direction limit rib (7) and each other's incorrect fitting prevention slot, and a card will be normally contained by the case. [Drawing 7]

On the other hand, if it is going to contain an IC card from an anti-connector side, an IC card back end corner will interfere with the receipt direction limit rib (7), and will not be contained normally. [Drawing 8]

From the state which the card was normally contained by the case and has closed, in case equipments, such as a personal computer, are equipped, a base side is turned downward, and it is the fingerplate (4) and the base (6) at the time of opening and closing of covering.

A finger is hung on ***** and a case is opened.

The connector side of a card is hidden by the card receptacle section (8), holds the

exposed anti-connector side and takes it out from a case. Then, a connector side is carried out previously and wearing to equipments, such as a personal computer, is attained.

When an IC card is discharged from a personal computer etc., the anti-connector side of an IC card is held, a connector side is carried out previously as it is, and receipt becomes possible at a case. That is, after equipping a personal computer etc. and discharging, without touching a connector side with a hand, receipt in a case is attained.

[0007]

[Example]

The example of this design is explained below.

[Example 1]

IC card 1 — [Drawing 3] And a case [drawing 2] It is alike, it attaches and an example is shown.

the incorrect fitting prevention slot (5) established in the nose-of-cam both-sides side of a connector area when the wearing direction limit rib (7-a) was prepared in the inside both-sides side of the card receptacle section (8) and an IC card was contained normally (i.e., when containing from a connector area (10)) — the receipt direction limit rib (7-a) and a fit — it is contained by the case, without being obstructed [Drawing 7]

On the other hand, if an IC card is contained from an anti-connector side, an IC card back end corner will interfere in the receipt direction limit rib (7-a), and receipt will be impossible. [Drawing 8]

The card receipt direction is restricted by the above.

[Example 2]

IC card 2 — [Drawing 6] And a case [drawing 4 and drawing 5] It is alike, it attaches and an example is shown.

By this example, the example using the geometrical difference by the side of a connector and an anti-connector is shown, without using the incorrect fitting prevention slot on the card.

The rib for card drawing (9) is prepared in the card back end, and, as for IC card 2, the thickness of the card of this portion is thick about 0.6mm from the thickness of a connector area at it.

This geometrical difference is used.

While being continuously prolonged from the card receptacle (8) inside to about 5mm of base end-face this side, a rib (11-a) is prepared, and the recess for height is established for the rib for drawing of a card (9).

Similarly, while being prolonged to about 5mm of covering end-face this side to covering (1) on the covering inside upper surface, a rib (11-b) is prepared.

The receipt direction limit rib (7-b) is prepared in the card receptacle (8) inside upper surface.

If it contains from a connector side when containing an IC card normally namely, a

card drawing rib (9) will be contained by the case, without interfering in an inside rib (11-a). [Drawing 9]

On the other hand, if an IC card is contained from an anti-connector side, a drawing rib (9) will interfere in the receipt direction limit rib (7-b), and a card will not be contained. [Drawing 10]

The card receipt direction is restricted by the above.

[Effect of the Device]

It becomes possible to become possible to carry out without [without it takes out the card contained by the case and wearing and operation of a series of the discharge from equipment and the re-receipt to a case further have a card in equipments, such as a personal computer, again by using the case of this design, and] touching a connector area with a hand, and to make influence of static electricity to an IC card into the minimum on receipt and discharge operation.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The block diagram of the case of this design

[Drawing 2] Assembly drawing of the case of this design

[Drawing 3] IC card 1, the example of representation

[Drawing 4] The block diagram of an example 2

[Drawing 5] Assembly drawing of an example 2

[Drawing 6] IC card 2, the example of representation

[Drawing 7] The cross-sectional view at the time of card receipt

[Drawing 8] The cross-sectional view at the time of card incorrect receipt

[Drawing 9] Drawing of longitudinal section at the time of card receipt

[Drawing 10] Drawing of longitudinal section at the time of card incorrect receipt

[Description of Notations]

1. Covering

- 2-a. Tacking section (covering side)
- 2-b. Tacking section (base side)
- 3-a. Hinge region (covering side)
- 3-b. Hinge region (base side)
- 4. Fingerplate Section at Time of Opening and Closing
- 5. Incorrect Fitting Prevention Slot
- 6. Base
- 7-a The receipt direction limit rib
- 7-b. The receipt direction limit rib
- 8. Card Receptacle Section
- 9. Rib for Card Drawing
- 10. Connector Area
- 11-a. Inside rib (base side)
- 11-a. Inside rib (covering side)
- 12-a. IC card 1
- 12-b. IC card 2

[Translation done.]

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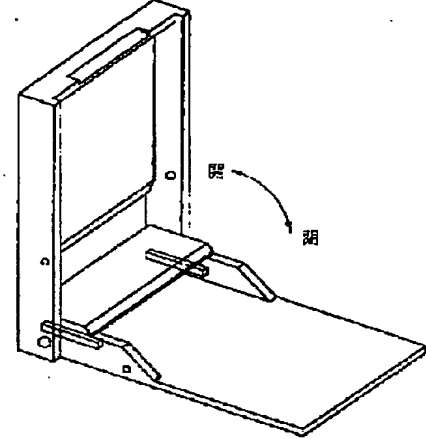
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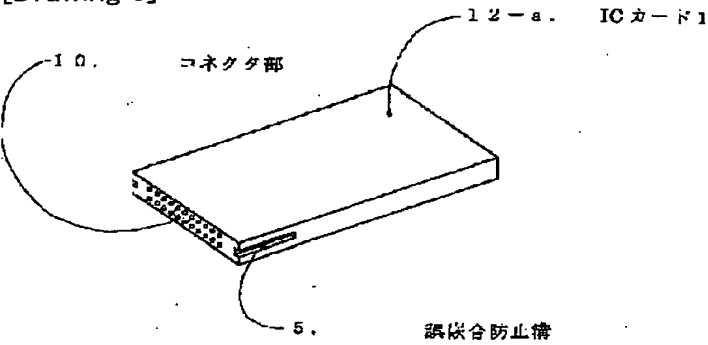
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DRAWINGS

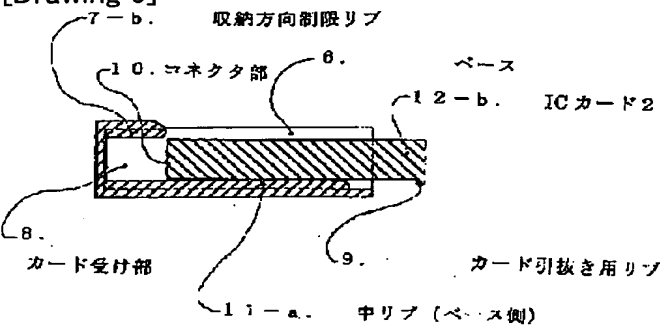
[Drawing 2]



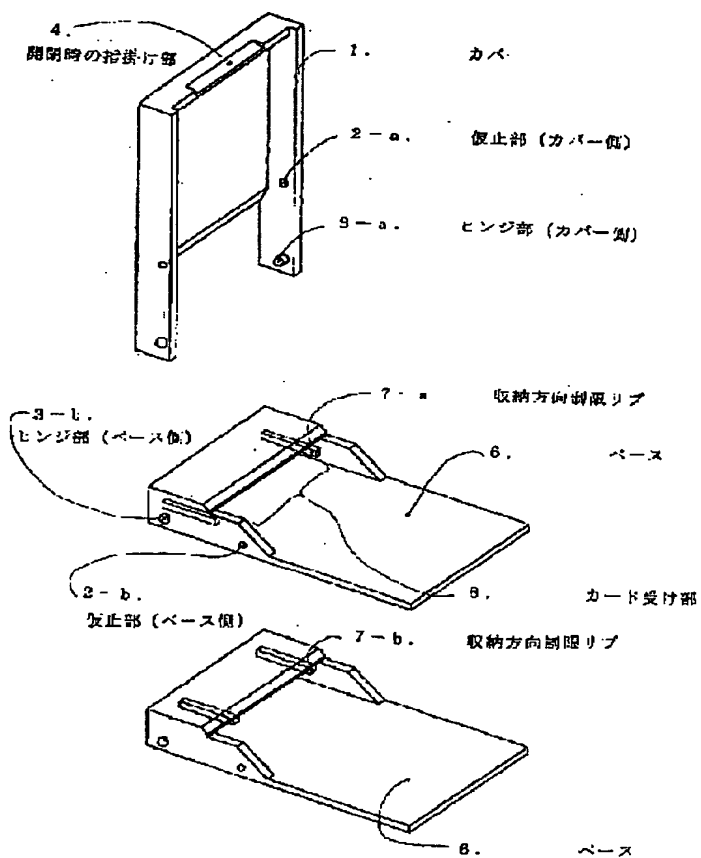
[Drawing 3]



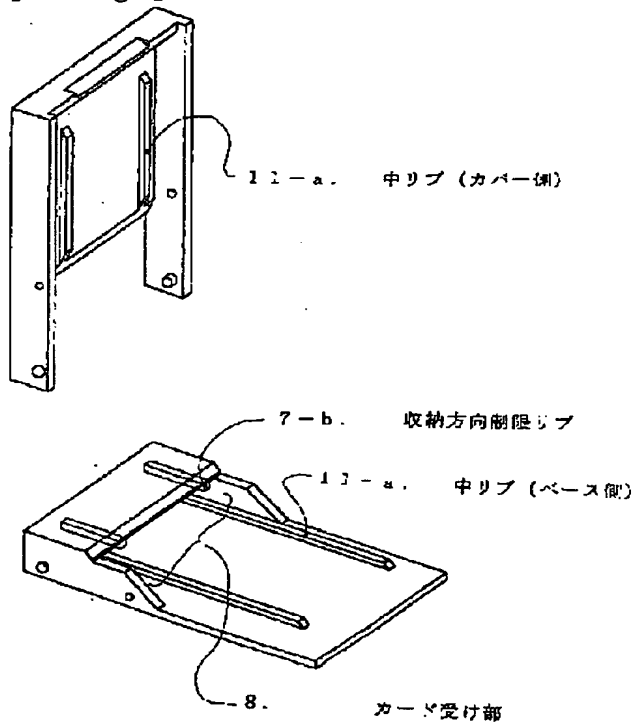
[Drawing 9]



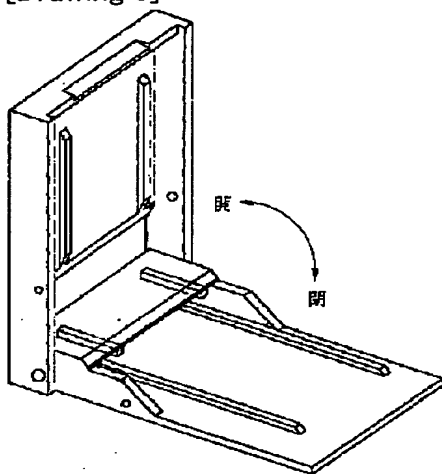
[Drawing 1]



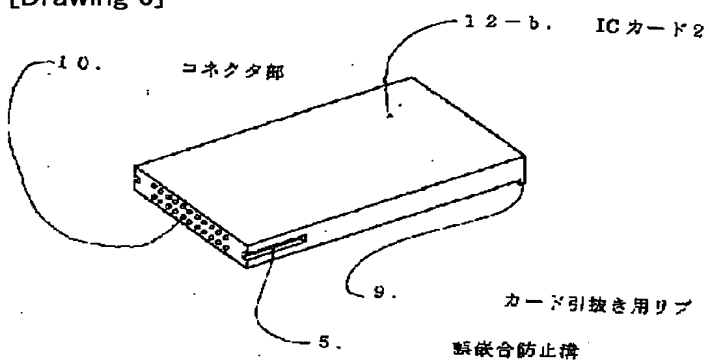
[Drawing 4]



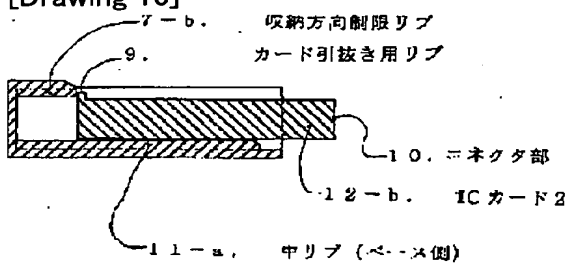
[Drawing 5]



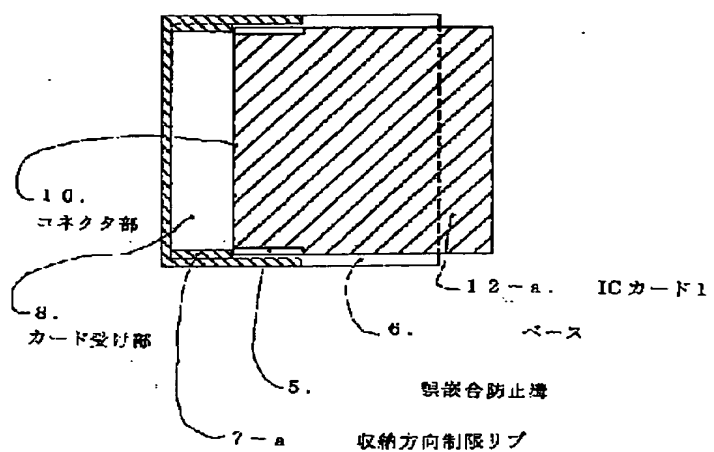
[Drawing 6]



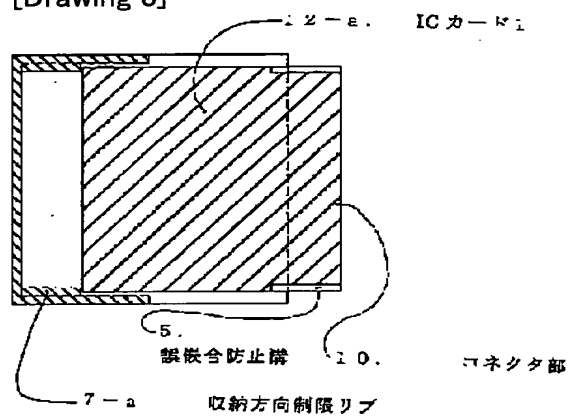
[Drawing 10]



[Drawing 7]



[Drawing 8]



[Translation done.]

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G 0 6 K 19/00

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5 2 1

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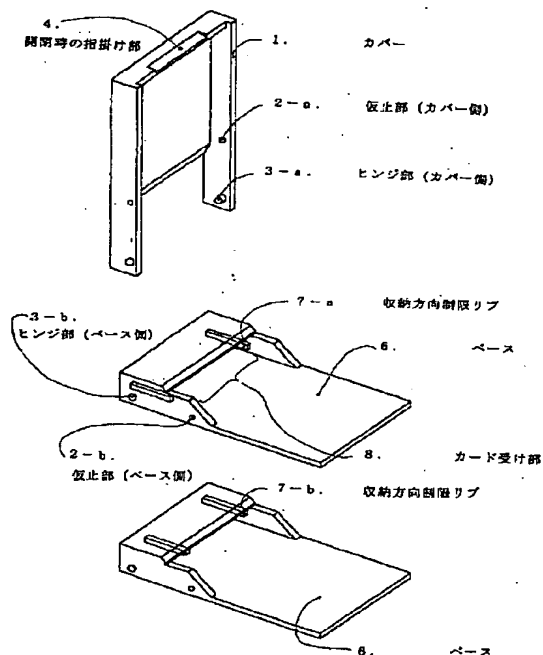
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(54) 【考案の名称】 ICカード用ケース

(57) 【要約】 (修正有)

【課題】 一辺に外部との接続用コネクタ有するICカードの出し入れの際、コネクタ側に直接触れる事のない様且つ、人体に帯電した静電気により内部回路の静電破壊を防止するケースを提供する。

【解決手段】 カバー1とベース6より構成され、各々のヒンジ部3-a, 3-bで嵌め合わされ回転対偶をなす。ベース先端部には閉じたカード受け部8を、その外側両側面にはヒンジ部、仮止部2-bを設ける。カード受け部の内側両側面には収納されるカードの誤嵌防止溝に適合するカード収納方向制限リップ7-aを設ける。収納されるカード形状に応じ、カード受け部の内側上面にカード収納方向制限リップ7-bを設ける場合もある。カバーの外側端面には開閉時の指掛け部4を、内側両側面にはヒンジ部、仮止部2-aを設ける。



1

【実用新案登録請求の範囲】

【請求項1】ベース（6）の先端が閉じた形状のカード受け部（8）を設け、外側両側面には、ヒンジ部（3-b）、仮止部（2-b）を設ける。カード受け部（8）の内側両側面にはICカードの誤嵌合防止溝（5）に適合するカード収納方向制限リブ（7-a）を設ける。また、内側上面にカード収納方向制限リブ（7-b）を設ける場合もある。ICカードの誤嵌合防止溝（5）を利用せず、カード引抜きリブ（9）等のコネクタ側、反コネクタ側の形状的差異を利用する場合、カード収納方向制限リブ（7-b）を設ける。カバー（1）の内側両側面先端にヒンジ部（3-a）、仮止部（2-a）を設け、外側端面には開閉時の指掛け部（4）を設ける。ベース（6）、カバー（1）の各々のヒンジ部（3-a、3-b）を嵌め合わせ、ケースを構成する。以上の構造を特徴とするICカード用ケース。

【請求項2】請求項1のケースにあって、使用材料が帯電防止剤を含有しているもの。

【請求項3】請求項2のケースにあって、表面が帯電防止処理されているもの。

【図面の簡単な説明】

【図1】本考案のケースの構成図

【図2】本考案のケースの組立図

【図3】ICカード1、代表例

【図4】実施例2の構成図

2

*【図5】実施例2の組立図

【図6】ICカード2、代表例

【図7】カード収納時の横断面図

【図8】カード誤収納時の横断面図

【図9】カード収納時の縦断面図

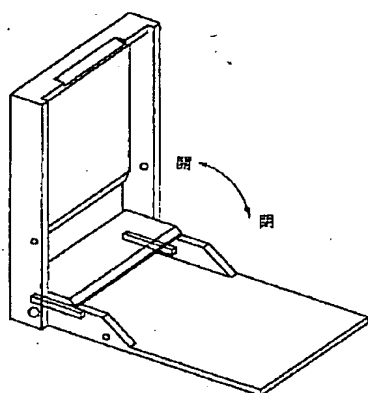
【図10】カード誤収納時の縦断面図

【符号の説明】

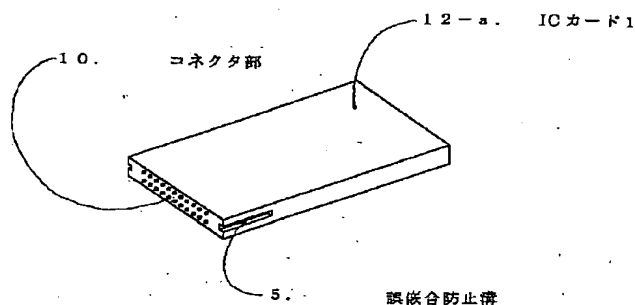
- | | |
|-------|------------|
| 1. | カバー |
| 2-a. | 仮止部（カバー側） |
| 2-b. | 仮止部（ベース側） |
| 3-a. | ヒンジ部（カバー側） |
| 3-b. | ヒンジ部（ベース側） |
| 4. | 開閉時の指掛け部 |
| 5. | 誤嵌合防止溝 |
| 6. | ベース |
| 7-a. | 収納方向制限リブ |
| 7-b. | 収納方向制限リブ |
| 8. | カード受け部 |
| 9. | カード引抜き用リブ |
| 10. | コネクタ部 |
| 11-a. | 中リブ（ベース側） |
| 11-a. | 中リブ（カバー側） |
| 12-a. | ICカード1 |
| 12-b. | ICカード2 |

*

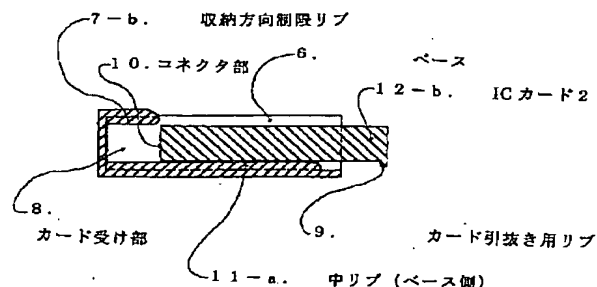
【図2】



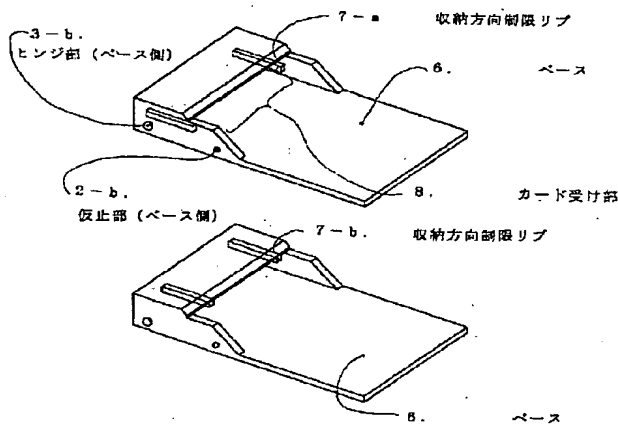
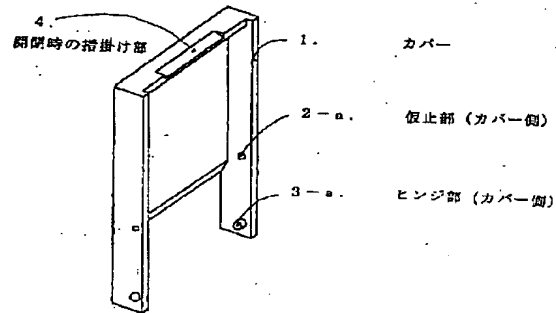
【図3】



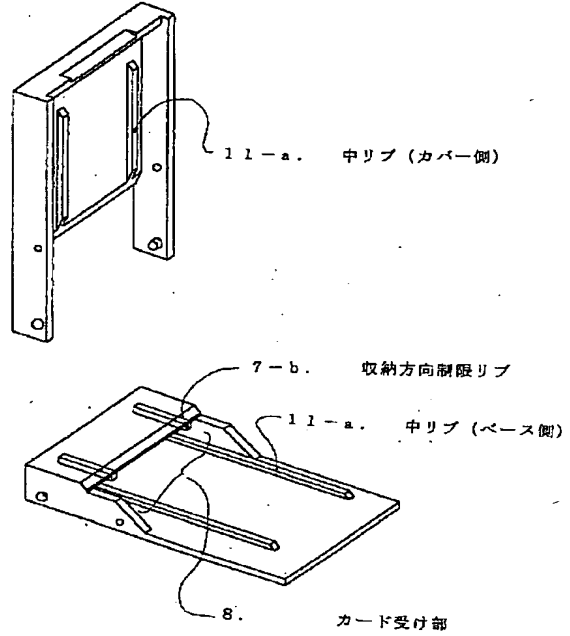
【図9】



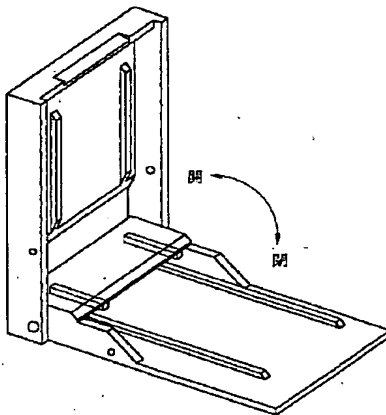
【図1】



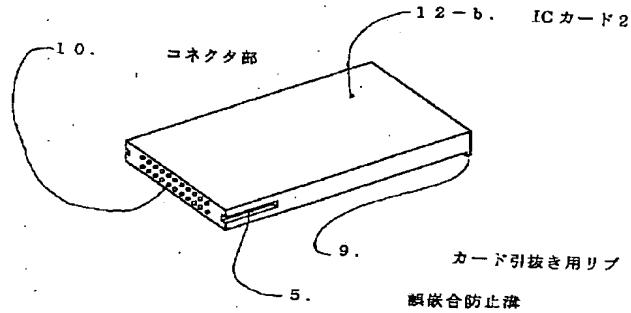
【図4】



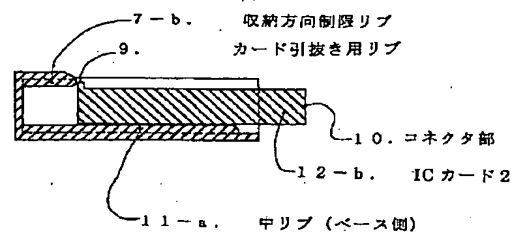
【図5】



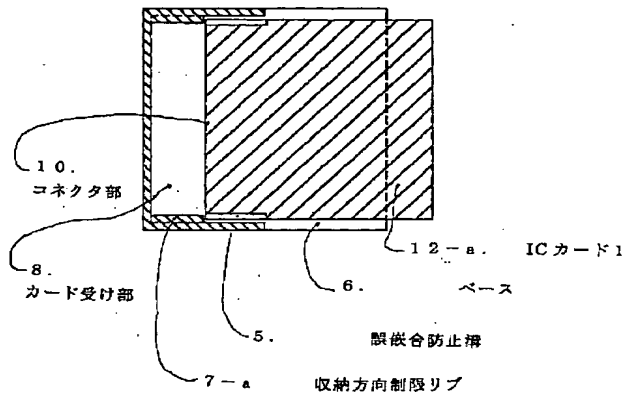
【図6】



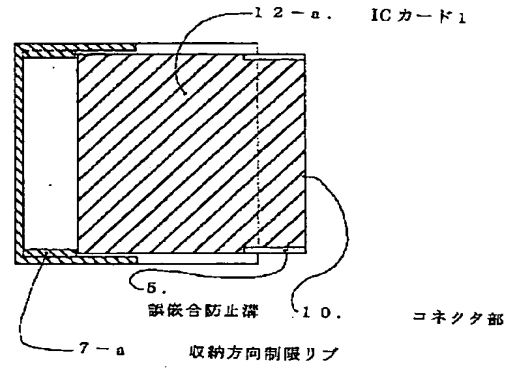
【図10】



【図7】



【図8】



【考案の詳細な説明】**【0001】****【産業上の利用分野】**

本考案は、メモリーカードやI/Oカードに代表される一辺に外部との接続用コネクタを有するICカードのケースに関する。

【0002】**【従来の技術】**

従来のケースは一般にICカードを収納する明確な方向性がなく、ICカードのコネクタ側を手前または、反対側のどちらでも収納が可能である。ICカードをケースから取出す際、コネクタ側を直接掴み、人体に帯電した静電気の放電によりメモリ等の半導体を静電破壊する危険性があった。

【0003】**【考案が解決しようとする課題】**

従来のICカード用ケースではケースに収納した際、方向が定まらずICカードのコネクタ側を手前になる様収納されている場合、ICカードをケースから出す際、人体に帯電した静電気がコネクタを介し放電し内部のメモリ等の半導体を静電破壊する危険性があった。また、この場合ICカードをパソコンなどに装着する際、コネクタ側を反対側に持ち替える必要があり、その際にも同様の危険性があった。

【0004】

本考案は、上記の問題を解決するものであり、ケースからICカード出し入れの際、コネクタ部を直接人体に触れることなく、また、ケースからICカードを取出したままの状態でパソコン等の装置に装着することが可能なケースを提供することを課題とする。

【0005】**【課題を解決するための手段】**

本考案では、様々なICカードの構造・形状に合わせケース受け部内側にリブ・突起等を設け収納方向性を持たせ、ICカードのコネクタ側からケースに収納せしめる。あるいは、ケースを開けた際、ICカードの反コネクタ側を掴み、その

ままパソコン等の装置に装着が可能となる。

また、静電気対策の一環として、ケースの材質に帯電防止剤を含有したものを用いる事や、ケース表面に帯電防止処理を施す事により、より一掃の効果が期待出来るものとなる。

【0006】

【作用】

本考案によると、ICカード1のコネクタ側を先にしてケースのカード受け(8)に収納すると、カード収納方向制限リブ(7)と誤嵌合防止溝は嵌め合い、カードは正常にケースに収納される。【図7】

一方、ICカードを反コネクタ側から収納しようとする、ICカード後端角部が収納方向制限リブ(7)と干渉し、正常に収納されない。【図8】

カードがケースに正常に収納され閉じている状態から、パソコン等の装置に装着する際は、ベース側を下に向け、カバーの開閉時の指掛け(4)とベース(6)の先端に指を掛け、ケースを開く。

カードのコネクタ側は、カード受け部(8)に隠れており、露出している反コネクタ側を掴みケースから取り出す。そのまま、コネクタ側を先にしてパソコンなどの装置に装着可能となる。

パソコン等からICカードを排出した際は、ICカードの反コネクタ側を掴み、そのままコネクタ側を先にしてケースに収納可能となる。即ち、コネクタ側に手を触れることなくパソコン等に装着し、また、排出した後、ケースに収納可能となる。

【0007】

【実施例】

以下本考案の実施例について説明する。

【実施例1】

ICカード1【図3】及びケース【図2】について、実施例を示す。

カード受け部(8)の内側両側面に装着方向制限リブ(7-a)が設けられており、正常にICカードを収納する時、即ち、コネクタ部(10)から収納する時、コネクタ部の先端両側面に設けられた誤嵌合防止溝(5)が収納方向制限リブ

(7-a)と嵌合い、阻まれることなくケースに収納される。【図7】

一方、ICカードを反コネクタ側から収納すると、ICカード後端角部が収納方向制限リブ(7-a)に干渉し収納が出来ない。【図8】

以上により、カード収納方向が制限される。

【実施例2】

ICカード2【図6】及びケース【図4, 図5】について、実施例を示す。

本例では、カードの誤嵌合防止溝を利用することなく、コネクタ側と反コネクタ側の形状的差異を利用した実施例を示す。

ICカード2はカード後端にカード引抜き用リブ(9)が設けられており、この部分のカードの厚みはコネクタ部の厚みより0.6mm程度厚くなっている。

この形状的差異を利用する。

カード受け(8)内側から連続してベース端面手前5mm程度まで延びた中リブ(11-a)を設け、カードの引抜き用リブ(9)を高さ分の逃げを設ける。

同様に、カバー(1)にもカバー内側上面にカバー端面手前5mm程度まで延びた中リブ(11-b)を設ける。

カード受け(8)内側上面に収納方向制限リブ(7-b)を設ける。

正常にICカードを収納する場合、即ち、コネクタ側から収納すると、カード引抜きリブ(9)は、中リブ(11-a)に干渉することなくケースに収納される。【図9】

一方、ICカードを反コネクタ側から収納すると、カードは引抜きリブ(9)が収納方向制限リブ(7-b)に干渉し、収納されない。【図10】

以上により、カード収納方向が制限される。

【考案の効果】

本考案のケースを用いることで、ケースに収納されたカードを取出し、パソコン等の装置に装着、さらに装置からの排出、ケースへの再収納の一連の動作が、カードを持ち替えることなく、またコネクタ部に手を触れることなくおこなうことが可能となり、また、収納、排出操作上、ICカードに対する静電気の影響を最小限にすることが可能となる。